PALM INTRANET

Day : Monday
Date: 11/7/2005

Time: 12:56:09

Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.
Additionally, enter the **first few letters** of the Inventor's First name.

Last Name	**First Name**	
Robotti	Karla	Search

To go back use Back button on your browser toolbar.

Back to PALM | ASSIGNMENT | OASIS | Home page

```
                    Welcome to DialogClassic Web(tm)
 Dialog level 05.08.03D
Last logoff:  31oct05 16:24:49
Logon file001 07nov05 16:06:05
          *** ANNOUNCEMENT ***
                    ***
--UPDATED: Important Notice to Freelance Authors--
See HELP FREELANCE for more information
                    ***
NEW FILES RELEASED
***Inspec (File 202)
***Physical Education Index (File 138)
***Computer and Information Systems Abstracts (File 56)
***Electronics and Communications Abstracts (File 57)
***Solid State and Superconductivity Abstracts (File 68)
***ANTE: Abstracts in New Technologies (File 60)
                    ***
RELOADS COMPLETED
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is now available online.

RESUMED UPDATING
***ERIC (File 1)
                    ***
Chemical Structure Searching now available in Prous Science Drug
Data Report (F452), Prous Science Drugs of the Future (F453), IMS R&D Focus (F445/95
Facts (F390), and Derwent Chemistry Resource (F355).
                    ***
     >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >>>    of new databases, price changes, etc.      <<<
                    ****
KWIC is set to 50.
HILIGHT set on as ' '
 * * *

File   1:ERIC 1966-2005/Sep 30
       (c) format only 2005 Dialog

      Set  Items  Description
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Cost is in DialUnits
?

B 155, 5, 73
       07nov05 16:06:16 User259876 Session D816.1
            $0.84    0.241 DialUnits File1
     $0.84  Estimated cost File1
     $0.05  INTERNET
     $0.89  Estimated cost this search
     $0.89  Estimated total session cost   0.241 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R) 1951-2005/Nov 04
         (c) format only 2005 Dialog
  File   5:Biosis Previews(R) 1969-2005/Oct W5
         (c) 2005 BIOSIS
  File  73:EMBASE 1974-2005/Nov 07
         (c) 2005 Elsevier Science B.V.

      Set  Items  Description
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?

S SOL-GEL OR (SOL (W) GEL)
             30  SOL-GEL
          11378  SOL
         693561  GEL
           3729  SOL(W)GEL
      S1    3729  SOL-GEL OR (SOL (W) GEL)
?

S (ENCAPSULATED OR ENTRAPPED OR IMMOBILIZED) (S) (ENZYME OR DNA OR RNA OR ANTIBODY O
Processing
          32820  ENCAPSULATED
          15293  ENTRAPPED
          95676  IMMOBILIZED
        2051423  ENZYME
        2537317  DNA
        1536691  RNA
        1284158  ANTIBODY
        1230750  BIOLOGICAL
         545561  MATERIAL
           5601  BIOLOGICAL(W)MATERIAL
      S2   39370  (ENCAPSULATED OR ENTRAPPED OR IMMOBILIZED) (S) (ENZYME OR
                  DNA OR RNA OR ANTIBODY OR (BIOLOGICAL (W) MATERIAL))
?

S S1 AND S2
           3729  S1
          39370  S2
      S3     299  S1 AND S2
?

S (MICROANALYTICAL OR MICROFLUIDIC OR MICRODEVICE OR MICROARRAY OR MICROCHANNEL OR M
           1639  MICROANALYTICAL
           3365  MICROFLUIDIC
            240  MICRODEVICE
          46004  MICROARRAY
           1371  MICROCHANNEL
           1645  MICROCOLUMN
      S4   53605  (MICROANALYTICAL OR MICROFLUIDIC OR MICRODEVICE OR
                  MICROARRAY OR MICROCHANNEL OR MICROCOLUMN)
?

S S3 AND S4
            299  S3
          53605  S4
      S5      14  S3 AND S4
?

RD
...completed examining records
      S6       8  RD (unique items)
?

T S6/3,K/ALL

  6/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.
```

17874565 PMID: 15253661
Entrapment of Src protein tyrosine kinase in sugar-modified silica.
Cruz-Aguado Jorge A; Chen Yang; Zhang Zheng; Brook Michael A; Brennan John D
Department of Chemistry, McMaster University, Hamilton, Ontario L8S 4M1, Canada.
Analytical chemistry (United States) Jul 15 2004, 76 (14) p4182-8, ISSN 0003-2700 Journal Code: 0370536
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... time a protein tyrosine kinase (PTK). Silane precursors bearing covalently attached gluconamide moieties were used in combination with the biocompatible precursor diglycerylsilane (DGS) to generate **sol - gel** derived silica that was able to encapsulate highly active Src PTK and preserve the activity of the **enzyme** over multiple uses. The relative activity of the **enzyme** was assayed using a LANCE based fluorescence resonance energy transfer method involving time-gated detection of fluorescence from a europium labeled antiphosphotyrosine **antibody** and Cy5 labeled streptavidin upon mutual binding to biotinylated phosphopeptides. Using this detection method, with the **antibody** and streptavidin external to the **sol - gel** matrix, it was possible to detect the phosphorylation of peptides with molecular weights of up to 2300 Da using the **entrapped enzyme** in N-(3-triethoxysilylpropyl)gluconamide (GLTES) doped glasses. Src kinase-doped glasses, derived from precursors such as tetramethyl orthosilicate, tetraethyl orthosilicate, or DGS that did not contain GLTES, provided no detectable **enzyme** activity. The addition of 1 mM ATP to the GLTES/DGS sol before the encapsulation of the protein increased the activity of the **enzyme** in the resulting gel, likely through a ligand-based stabilization mechanism. The use of such a system for determination of PTK activity and inhibition is demonstrated, setting the stage for the development of chromatographic and **microarray** based methods for the screening of kinase inhibitors.

6/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14757422 PMID: 12713046
Microchip-based purification of DNA from biological samples.
Breadmore Michael C; Wolfe Kelley A; Arcibal Imee G; Leung Wayne K; Dickson Dana; Giordano Braden C; Power Mary E; Ferrance Jerome P; Feldman Sanford H; Norris Pamela M; Landers James P
Department of Chemistry, University of Virginia, Charlottesville, Virginia 22904, USA.
Analytical chemistry (United States) Apr 15 2003, 75 (8) p1880-6, ISSN 0003-2700 Journal Code: 0370536
Contract/Grant No.: R21 CA78865-01; CA; NCI; R24 ES10229-01; ES; NIEHS
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

A microchip solid-phase extraction method for purification of **DNA** from

biological samples, such as blood, is demonstrated. Silica beads were packed into glass microchips and the beads **immobilized** with **sol** -□gel□ to provide a stable and reproducible solid phase onto which **DNA** could be adsorbed. Optimization of the **DNA** loading conditions established a higher **DNA** recovery at pH 6.1 than 7.6. This lower pH also allowed for the flow rate to be increased, resulting in a decrease in extraction time from 25 min to less than 15 min. Using this procedure, template genomic **DNA** from human whole blood was purified on the microchip platform with the only sample preparation being mixing of the blood with load buffer prior to loading on the microchip device. Comparison between the microchip SPE (microchipSPE) procedure and a commercial microcentrifuge method showed comparable amounts of PCR-amplifiable **DNA** could be isolated from cultures of Salmonella typhimurium. The greatest potential of the microchipSPE device was illustrated by purifying **DNA** from spores from the vaccine strain of Bacillus anthracis, where eventual integration of SPE, PCR, and separation on a single **microdevice** could potentially enable complete detection of the infectious agent in less than 30 min.

6/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14722144 PMID: 12669868
Simple method for preparation of nanostructure on microchannel **surface and its usage for enzyme-immobilization.**
Miyazaki Masaya; Kaneno Jun; Uehara Masato; Fujii Masayuki; Shimizu Hazime; Maeda Hideaki
Micro-space Chemistry Laboratory, National Institute of Advanced Industrial Science and Technology, 807-1 Shuku, Tosu, 841-0052 Saga, Japan.
Chemical communications (Cambridge, England) (England) Mar 7 2003, (5) p648-9, ISSN 1359-7345 Journal Code: 9610838
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Simple method for preparation of nanostructure on microchannel **surface and its usage for enzyme-immobilization.**
We developed a novel preparation method of nanostructure on the **microchannel** surface formed by **sol** -□gel□like simple treatment with 3-aminopropyltriethoxysilane, which is suitable for a highly efficient **enzyme immobilized microchannel** reactor.

6/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13680689 PMID: 11320503
Stable sol - gel □microstructured and□ microfluidic□networks for□ **protein patterning.**
Kim Y D; Park C B; Clark D S
Department of Chemical Engineering, University of California, 110-C Gilman Hall, Berkeley, CA 94720, USA.
Biotechnology and bioengineering (United States) Jun 5 2001, 73 (5) p331-7, ISSN 0006-3592 Journal Code: 7502021
Publishing Model Print
Document type: Journal Article

Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Stable sol - gel □microstructured and□ microfluidic□networks for□ **protein patterning.**
We demonstrate the formation of micropatterned **sol** - **gel** structures containing active proteins by patterning with polydimethylsiloxane (PDMS) microchannels. To transport sol solution efficiently into the hydrophobic PDMS microchannels, a hydrophilic-hydrophobic block copolymer...
... were prepared containing the reactive organic moieties polyvinylalcohol or polyvinylpyrrolidone. Retention of biochemical activity within the micropatterned gel was demonstrated by performing immunobinding assays with **immobilized** immunoglobulin G (IgG) **antibody** . The potential application of microfluidics technology to **immobilized** - **enzyme** biocatalysis was demonstrated using PDMS-patterned microchannels filled with trypsin-containing sol-gels. This work provides a foundation for the microfabrication of functional protein chips using **sol** - **gel** processes.

6/3,K/5 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014741021 BIOSIS NO.: 200400110727
Coupled enzyme reaction microarrays based on pin-printing of sol - gel **derived biomaterials.**
AUTHOR: Rupcich Nicholas; Brennan John D (Reprint)
AUTHOR ADDRESS: Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Canada**Canada
AUTHOR E-MAIL ADDRESS: brennanj@mcmaster.ca
JOURNAL: Analytica Chimica Acta 500 (1-2): p3-12 19 December, 2003 2003
MEDIUM: print
ISSN: 0003-2670 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Coupled enzyme reaction microarrays based on pin-printing of sol - gel **derived biomaterials.**

ABSTRACT: We report on the development of a new class of protein microarrays based on the co-immobilization of multiple components within a single pin-printed **sol** - **gel** array element. In the first case, the microarraying of a coupled two **enzyme** reaction involving glucose oxidase and horseradish peroxidase along with the fluorogenic reagent Amplex Red is demonstrated to allow "reagentless" fluorimetric detection of glucose. The second system involved the detection of urea using co-**immobilized** urease and fluorescein dextran, which works on the basis of a pH induced change in fluorescein emission intensity upon production of ammonium carbonate owing to hydrolysis of urea. In both the cases, it is demonstrated that the changes in intensity from the array are time-dependent, consistent with the **enzyme** catalyzed reaction, showing that such arrays can be used for kinetic studies. The rate of intensity change was also found to be dependent on the...

...array, showing that such arrays could be useful for quantitative multianalyte biosensing. Inhibition of urease by the competitive inhibitor thiourea is also demonstrated on a **microarray** , demonstrating

that **sol - gel** -based microarrays may find use in high-throughput drug-screening applications.
DESCRIPTORS:
METHODS & EQUIPMENT: coupled enzyme reaction **microarray** --
MISCELLANEOUS TERMS: **sol - gel** derived biomaterials

6/3,K/6 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

13245545 EMBASE No: 2005305159
A sol - gel□immobilization of nano and micron size sorbents in□ poly(dimethylsiloxane) (PDMS) microchannels for microscale solid phase extraction (SPE)
Karwa M.; Hahn D.; Mitra S.
S. Mitra, Department of Chemistry and Environmental Science, New Jersey Institute of Technology, 138 Warren Street, Newark, NJ 07032 United States
AUTHOR EMAIL: mitra@adm.njit.edu
Analytica Chimica Acta (ANAL. CHIM. ACTA) (Netherlands) 01 AUG 2005, 546/1 (22-29)
CODEN: ACACA ISSN: 0003-2670
PUBLISHER ITEM IDENTIFIER: S0003267005008408
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 44

A sol - gel□immobilization of nano and micron size sorbents in□ poly(dimethylsiloxane) (PDMS) microchannels for microscale solid phase extraction (SPE)
Sorbent particles consisting of nano and micro silica, and micron size octadecylsilica (ODS) were **immobilized** using **sol -□gel□**chemistry onto poly(dimethylsiloxane) (PDMS) **microfluidic** channels to serve as mu-chip solid phase extraction (SPE) devices. Extraction, preconcentration and purification of biological and chemical analytes were carried out using these. Micro and nano scale silica- **immobilized** mu-SPE were used for the extraction/purification of **DNA** from recombinant Escherichia coli crude lysate. The average **DNA** recovery was 77 +/- 9% (X +/- R.S.D.) for the micron size silica particles and 70 +/- 5% (X +/- R.S.D.) for the nano silica particles. The extracted **DNA** could be amplified by polymerase chain reaction (PCR) whereas the **DNA** from the crude lysate solution could not be. This was a testimony to the purification capability of the mu-SPE device. ODS **immobilized** mu-SPE were used to study the extraction efficiency (EE) and enhancement factor (EF) for three groups of organic compounds, aromatics, phenols and carboxylic acids...

6/3,K/7 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

13083662 EMBASE No: 2005143994
Protein array consisting of sol - gel□bioactive platform for detection□ of E. coli O157:H7
Lee W.; Park K.-S.; Kim Y.-W.; Lee W.H.; Choi J.-W.
J.-W. Choi, Dept. of Chem. and Biomol. Eng., Sogang University, 1 Shinsu-Dong, Mapo-Gu, Seoul 121-742 South Korea
AUTHOR EMAIL: jwchoi@ccs.sogang.ac.kr
Biosensors and Bioelectronics (BIOSENS. BIOELECTRON.) (United Kingdom)

15 MAY 2005, 20/11 (2292-2299)
CODEN: BBIOE ISSN: 0956-5663
DOCUMENT TYPE: Journal ; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 26

Protein array consisting of sol - gel□bioactive platform for detection□ **of E. coli O157:H7**

Sol - gel -derived bioactive platform was fabricated for detection of pathogenic microbes, E. coli O157:H7. Design flexibility of **sol - gel** technique and ease of fabrication can fulfill to create the surfaces with structural and chemical features that are compatible with biomaterials such as **antibody** , enzymes, etc. In this study, the bioactive platform was prepared based on the silica gels, which were produced by hydrolyzing tetraethylorthosilane (TEOS) in ethanol. The...

...triethoxysilane (MPTS) was mixed with the TEOS solution for the surface functionalization of bioactive platform. During TEOS hydrolysis, the modified thin film was prepared by **sol - gel** dip coating.□Antibody□ against E. coli O157:H7 was **immobilized** with a configuration of protein array using piezo-type dispensing system. Surface morphology of the prepared bioactive platform was analyzed using atomic force microscopy (AFM). The **antibody** -antigen interaction was investigated with fluorescence microscopy and sandwich type immunoassay using fluorescein isothiocyanate (FITC)-labeled **antibody** . The results showed that **antibody** was sequestered within the **sol - gel** -derived bio-gel due to physical adsorption. The measurement of E. coli O157:H7 was done using the fabricated **antibody** surface. The fluorescence intensity was proportional to the concentration of E. coli O157:H7, of which the detection limit was 10 SUP2 CFU/ml. (c...
MEDICAL DESCRIPTORS:
*protein **microarray** ; *bacterium detection

6/3,K/8 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE

12952447 EMBASE No: 2005011911
Titania and alumina sol - gel□-derived microfluidics enzymatic-reactors□ **for peptide mapping: Design, characterization, and performance**
Wu H.; Tian Y.; Liu B.; Lu H.; Wang X.; Zhai J.; Jin H.; Yang P.; Xu Y.; Wang H.
P. Yang, Department of Chemistry, Fudan University, Shanghai 200433 China
Journal of Proteome Research (J. PROTEOME RES.) (United States) 2004 , 3/6 (1201-1209)
CODEN: JPROB ISSN: 1535-3893
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 25

Titania and alumina sol - gel□-derived microfluidics enzymatic-reactors□ **for peptide mapping: Design, characterization, and performance**

...alumina-based Poly(dimethylsiloxane) (PDMS) microfluidics enzymatic-reactors along with their analytical features in coupling with MALDI-TOF and ESI-MS were reported. Microfluidics with **microchannel** and stainless steel tubing (SST) were fabricated using PDMS casting and

OSUB2-plasma techniques, and were used for the preparation of an enzymatic-reactor. Plasma oxidation for the PDMS **microfluidic** system enabled the channel wall of the microfluidics to present a layer of silanol (SiOH) groups. These SiOH groups act as anchors onto the **microchannel** wall linked covalently with the hydroxyl groups of trypsin-encapsulated sol matrix. As a result, the trypsin-encapsulated gel matrix was anchored onto the wall of the **microchannel** , and the leakage of gel matrix from the **microchannel** was effectively prevented. A feature of the **microfluidic** enzymatic-reactors is the feasibility of performing on-line protein analysis by attached SST electrode and replaceable tip. The success of trypsin encapsulation was investigated...
MEDICAL DESCRIPTORS:
*peptide mapping; *matrix assisted laser desorption ionization time of flight mass spectrometry; *electrospray mass spectrometry; * **immobilized enzyme** reactor
?

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Set     Items   Description
S1       3729   SOL-GEL OR (SOL (W) GEL)
S2      39370   (ENCAPSULATED OR ENTRAPPED OR IMMOBILIZED) (S) (ENZYME OR -
             DNA OR RNA OR ANTIBODY OR (BIOLOGICAL (W) MATERIAL))
S3        299   S1 AND S2
S4      53605   (MICROANALYTICAL OR MICROFLUIDIC OR MICRODEVICE OR MICROAR-
             RAY OR MICROCHANNEL OR MICROCOLUMN)
S5         14   S3 AND S4
S6          8   RD (unique items)
?

S S1 (S) S2
            3729  S1
           39370  S2
      S7     285  S1 (S) S2
?


Set     Items   Description
S1       3729   SOL-GEL OR (SOL (W) GEL)
S2      39370   (ENCAPSULATED OR ENTRAPPED OR IMMOBILIZED) (S) (ENZYME OR -
             DNA OR RNA OR ANTIBODY OR (BIOLOGICAL (W) MATERIAL))
S3        299   S1 AND S2
S4      53605   (MICROANALYTICAL OR MICROFLUIDIC OR MICRODEVICE OR MICROAR-
             RAY OR MICROCHANNEL OR MICROCOLUMN)
S5         14   S3 AND S4
S6          8   RD (unique items)
S7        285   S1 (S) S2
?

S S7 AND S4
            285  S7
           53605  S4
      S8      13  S7 AND S4
?

RD
...completed examining records
      S9       7  RD (unique items)
?

S S9 NOT S6
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                7  S9
                8  S6
     S10        0  S9 NOT S6
?


Set      Items   Description
S1        3729   SOL-GEL OR (SOL (W) GEL)
S2       39370   (ENCAPSULATED OR ENTRAPPED OR IMMOBILIZED) (S) (ENZYME OR -
             DNA OR RNA OR ANTIBODY OR (BIOLOGICAL (W) MATERIAL))
S3         299   S1 AND S2
S4       53605   (MICROANALYTICAL OR MICROFLUIDIC OR MICRODEVICE OR MICROAR-
             RAY OR MICROCHANNEL OR MICROCOLUMN)
S5          14   S3 AND S4
S6           8   RD (unique items)
S7         285   S1 (S) S2
S8          13   S7 AND S4
S9           7   RD (unique items)
S10          0   S9 NOT S6
?

COST
       07nov05 16:11:41 User259876 Session D816.2
             $4.07    1.197 DialUnits File155
                $0.88  4 Type(s) in Format  3
             $0.88  4 Types
     $4.95  Estimated cost File155
             $4.48    0.759 DialUnits File5
                $0.16  1 Type(s) in Format 95 (KWIC)
             $0.16  1 Types
     $4.64  Estimated cost File5
             $6.52    0.613 DialUnits File73
                $8.82  3 Type(s) in Format  3
             $8.82  3 Types
    $15.34  Estimated cost File73
             OneSearch, 3 files,  2.569 DialUnits FileOS
     $1.60  INTERNET
    $26.53  Estimated cost this search
    $27.42  Estimated total session cost   2.811 DialUnits
?
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Return to logon page!

Refine Search

Search Results -

Term	Documents
(11 AND 5).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	44
(L11 AND L5).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	44

Database:
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Search:

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Recall Text

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Interrupt

Search History

DATE: Monday, November 07, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=AND			
L12	L11 and L5	44	L12
L11	L2 same L3	450	L11
L10	L8 and L6	24	L10
L9	L8 and L6	24	L9
L8	(crushing or grinding) same (gel or particulate or particle)	84926	L8
L7	L6 and (UV or IR or Raman or (mass adj spectrometry))	162	L7
L6	L5 and L4	203	L6
L5	(microanalytical or microfluidic or microdevice or microarrray or microchannel or microcolumn)	22648	L5
L4	L3 and L2	1783	L4
	(encapsulated or entrapped or immobilized) same (enzyme or DNA or		

L3	RNA or antibody or molecule or material)	145255	L3
L2	(sol-gel) or (sol adj gel)	26518	L2
L1	Robotti-Karla.in.	3	L1

END OF SEARCH HISTORY